



CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Adopt Resolution Implementing the City of Lodi's Best Available Control Measures for Particulate Matter (Dust) in Accordance with the San Joaquin Valley Air Pollution Control District's Proposed Regulations

MEETING DATE: November 20, 2002

PREPARED BY: Public Works Director

RECOMMENDED ACTION: Adopt resolution implementing the City of Lodi's Best Available Control Measures for Particulate Matter (dust) in accordance with the San Joaquin Valley Air Pollution Control District's proposed regulations.

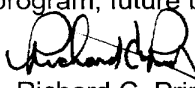
BACKGROUND INFORMATION: The San Joaquin Valley Air Basin has been designated as Severe for Particulate Matter (PM-10). The Federal Clean Air Act requires that the Severe Area Plan for the San Joaquin Valley Air Basin contains Best Available Control Measures to mitigate and reduce particulate matter emissions. Best Available Control Measures are demonstrated generally through increase in stringency. The increase in stringency is demonstrated by documenting that the new measure addresses a previously uncontrolled activity, and that the level of resources for enforcement has been increased.

In addition to providing methods for cleaning the air, the adoption of these Best Available Control Measures also works to ensure that restrictions are not placed on transportation funding. One of the consequences placed forth in the Clean Air Act for failure to adopt a complete and adequate particulate matter plan (i.e., one that contains adopted local governments control measures) is that highway funding and approvals can be frozen until the requirements of the Clean Air Act are deemed to be satisfied.

The measures proposed by the City of Lodi highlight programs which already are in place throughout the City (see attachments).

Background information on particulate matter has been included in this communication. Earth Matters, an air quality consultant to the eight valley Transportation Planning Agencies, has prepared this information for review by all jurisdictions in the eight county San Joaquin Valley Air Basin.

FUNDING: Funding for these measures exists within either existing budgets or, in the case of the stormwater pollution prevention program, future budgets.


Richard C. Prima, Jr.
Public Works Director

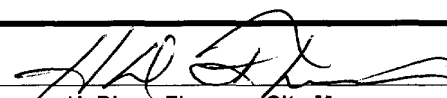
Attachments

Prepared by Tiffani M. Fink, Transportation Manager

RCP/TF/pmf

cc: SJCCOG – Kim Kloeb
City Attorney

APPROVED: _____


H. Dixon Flynn -- City Manager

CITY OF LODI
Local Government Control Measures for Particulate Matter
November 20, 2002

Measures Reasonable for Implementation

Measure #1: Paving or Stabilizing Unpaved Roads and Alleys

The City of Lodi currently does not have any unpaved public roads within its jurisdiction, however the City has no jurisdiction over roads in San Joaquin County. The City of Lodi currently follows the San Joaquin Valley Air Pollution Control District's regulations for construction dust whether as a result of a major construction project, or routine maintenance.

The City of Lodi will continue to adhere to San Joaquin Valley Air Pollution Control District regulations regarding Particulate Matter and ensure that the guidelines are followed for temporary roads and road repair during construction.

This project should not incur additional cost for implementation. Existing City resources are adequate to ensure implementation of this measure.

Measure #2: Paving, Vegetating and Chemically Stabilizing Unpaved Access Points onto Paved Roads

Construction debris on City roadways is monitored and routine street sweeping is conducted.

The City of Lodi will address requirements for stabilizing construction roadways in an effort to reduce the level of transport associated with construction projects. The requirements shall be addressed in coordination with the City's stormwater program implementation.

This project should not incur significant additional cost to the City of Lodi and will be part of the stormwater program budget.

Measure #3: Curbing, Paving or Stabilizing Shoulders on Paved Roads

The mass majority of the City of Lodi's roadways currently have paved or curbed shoulders. Those limited facilities which do not have these paved or curbed shoulders largely lie within newly annexed portions of the City which had previously belonged to San Joaquin County.

The City of Lodi intends to improve these roadways in the future to coincide with proposed developments along these corridors as funding is available. The limited

number of unpaved or curbed shoulders in Lodi does not create a large source of particulate matter emissions.

Measure #4: Frequent Routine Sweeping or Cleaning of Paved Roads

The City of Lodi currently undertakes in a comprehensive residential street cleaning two times per calendar month with major arterials cleaned weekly and following special events. Street sweeping and leaf removal is routinely provided by the City of Lodi Public Works Department. Additionally, City staff currently utilize two PM-10 efficient street sweepers to perform this work.

The City does not intend to routinely flush roadways as this is not in keeping with good water conservation or storm water pollution prevention practices.

When new street sweepers are added to the inventory, the City of Lodi shall ensure that all new sweepers are PM-10 efficient. This measure should not immediately incur the City of Lodi any additional costs.

Measure #5: Intensive Street Cleaning for Industrial Paved Roads and Construction Sites

The City of Lodi already conducts a comprehensive street cleaning program which includes an intensive street cleaning for industrial paved roads. Particulate Matter emissions from construction site access points will be addressed in the City-wide stormwater pollution prevention program.

This measure should not incur the City of Lodi any additional costs.

Measure #6: Erosion Clean-Up

The City of Lodi already has in place a plan to provide for a quick, efficient clean up of the roadways following major storms. The City streets department currently responds to a variety of requests stemming from storm damage and works to re-open and clear storm debris from roadways as soon as is feasible. With the occasional exception of construction sites, erosion is not significant in Lodi due to the extremely flat terrain.

The City of Lodi shall continue to perform erosion/storm clean up in a timely fashion.

DRAFT
Example Local Government Control Measures for Particulate Matter

Number	Measure Title	Description	Potential Candidate BACM in Reg. VIII
1	Paving or Stabilizing Unpaved Roads and Alleys		1. Prohibit the existence of new non-temporary ^[1] unpaved roads within any incorporated municipality or within a buffer distance (e.g. 5 miles) of any city limit; ^[1] Non-temporary could be defined as any public or private road that will not be paved or otherwise prohibited from use after a six-month period. 2. Establish provisions for the paving of existing unpaved roads under the purview of any government entity for a cumulative total of 5 miles over a five year period (exemptions could apply to any road more than five miles from any city boundary).
2	Paving, Vegetating, and Chemically Stabilizing Unpaved Access Points onto Paved Roads (Especially Adjacent to Construction/Industrial Sites)	Mud and dirt carryout from unpaved areas such as construction sites often accounts for a substantial fraction of paved road silt loadings in many areas. The elimination of this carryout may significantly reduce paved road emissions. This measure would involve paving, vegetating, or chemically stabilizing access points where unpaved traffic surfaces adjoin paved roads.	
3	Curbing, Paving, or Stabilizing Shoulders on Paved Roads (Includes Painting Stripe on Outside of Travel Lane)	Preventative measures are very important since mitigation measures are often less effective for paved roads, especially in instances where no dominant or localized source of dust loading can be identified. This measure would require the curbing, paving, or stabilizing (chemically or with vegetation) of shoulders of paved roads.	New/Modified Roads: Paved Roads - Eliminate the ADVT threshold for paving 4 feet from the current ADVT trigger level of 500 for such a paving requirement (consistent with EPA's guidance for BACM). Unpaved shoulders - Commitments from incorporated municipalities to "retrofit" existing unpaved shoulders as follows: 1. Determine cumulative miles of unpaved shoulders according to road ADVT; 2. Pave or stabilize (per Rule 8061) shoulder-miles of top 50% ADVT according to a phase-in schedule: 10% by end of 2004, and an additional 10% by the end of 2005.
4	Frequent Routine Sweeping or Cleaning of Paved Roads	Paved road sweeping and flushing represents a mitigation measure for paved road surface dust loading. This measure would involve the frequent sweeping or cleaning of paved roads, including the flushing of paved roads. Vacuum and regenerative sweeping are acceptable methods. Another option, roadway flushing, involves the use of high-pressure water sprays.	Require incorporated municipalities to do the following as it applies to new purchases of street sweepers for city or city-contracted fleets: 1. Purchase certified PM10-efficient street sweepers as new or replacement purchases to existing fleet; 2. Purchase at least one such unit within three years of the adoption and/or amendment of an applicable rule for existing street sweeper fleets of two or more (fleet refers to city-owned or contracted—if contractor fleet, the minimum purchase requirement applies separately to each jurisdiction for which the street sweeping contract exists); 3. If fleet contains both certified sweepers and non-certified sweepers, prioritize the use of certified sweepers for dirt-laden streets prior to any routine street sweeping. Municipalities are required to identify such dirt-laden routes and provide the District with a priority list of such routes within one year of rule adoption and/or amendment; 4. Use certified-PM10 efficient street sweeper at least once per month; 5. Operate and maintain such sweepers according to manufacturer specifications.
5	Intensive Street Cleaning Requirements for Industrial Paved Roads and Streets Providing Access to Industrial/Construction Sites	See Above	
6	Erosion Clean-up		Require incorporated municipalities to: 1. Remove debris/material after wind or rain runoff event by using street sweepers within 24 hours of identification, or prior to opening up traffic lanes in the event lanes were originally shut due to the erosion event; 2. Follow adequate dust control procedures in the removal of the material.

[1] Non-temporary could be defined as any public or private road that will not be paved or otherwise prohibited from use after a six-month period.

BACM OVERVIEW

- The Clean Air Act requires that the Moderate Area Plan include Reasonably Available Control Measures (RACM) and that the Serious Area Plan include Best Available Control Measures (BACM).
- EPA has guidance regarding the procedures to determine BACM. In general, documentation for the Plan should include:
 - a review of the procedures established by EPA,
 - the process followed in the SJV nonattainment area for selecting BACM,
 - a summary of the selected BACM, and
 - a review of the commitments to implement BACM.

In order to implement these procedures, a new regional emissions inventory will need to be developed for the Plan. EPA has indicated that the emissions inventory contained in the 1997 SJV PM-10 Plan was neither accurate nor comprehensive. The source categories in the emissions inventory will need to be evaluated for their impact on PM-10 concentrations in the SJV nonattainment area.

- The Selection of BACM must include review of EPA Technical Information Documents, Consideration of Public Comments, and the Adoption of Increasingly Stringent Control Measures.
- BACM is demonstrated generally through increase in stringency. However, it is possible to demonstrate that RACM commitments meet the BACM requirements. This can be done by documenting that no additional source control is possible. For example if the RACM commitments were made to pave ALL unpaved shoulders in the nonattainment area. In addition, it can be documented that it is infeasible to expand source control based on technological or economical infeasibility.
- Increase in Stringency is demonstrated by documenting that:
 - the new measure addresses a previously uncontrolled activity, or
 - that the effectiveness or the extent of applicability has been increased, or
 - that the level of resources for enforcement has been increased.

FACT SHEET ON PARTICULATE MATTER (PM-10)

What is particulate matter?

- Solid particles or liquid droplets that are small enough to remain suspended in the air (includes dust, soot, and smoke, as well as toxic particles).
- Particles ten microns and smaller in diameter are called PM-10.
- PM-10 generally consists of both direct particulates (e.g., soil particles) and secondary particulate matter (e.g., ammonium nitrate and ammonium sulfate) which is formed in the atmosphere from reactions between precursor gases (e.g., ROG, NOx, SOx).

How bad is the PM-10 problem in the San Joaquin Valley?

- 10 monitoring sites exceed the 24-hour standard from 1999 – 2001
- The 24-hour standard is 150 micrograms per cubic meter
- 3 monitoring sites exceed the annual standard from 1999 – 2001
- The annual standard is 50 micrograms per cubic meter

What are the sources of PM-10 emissions in the Valley?

- 2000 SJV Air Basin (www.arb.ca.gov/app/emsinv/) **NOTE: 1999 will be the base year for the Plan and Ammonia will be added to the inventory.**

<u>Source Category</u>	<u>PM-10</u>	<u>ROG</u>	<u>NOx</u>	<u>SOx</u>
Stationary	6%	21%	31%	58%
Area	89%	36%	2%	1%
- includes paved road dust	(13%)			
- includes unpaved road dust	(23%)			
Onroad Mobile	1%	43%	43%	9%
Nonroad Mobile	2%	24%	24%	32%
Natural (Non-Anthropogenic)	2%	<1%	<1%	0

What is the nonattainment status of the Valley?

- Classified as Moderate PM-10 area in 1991, under the Clean Air Act Amendments.
- Reclassified as Serious PM-10 area on January 8, 1993.
- Proposed finding of failure to attain by December 31, 2001 issued by EPA February 28, 2002.

What has been done to reduce emissions?

- LEV Program
- Enhanced vehicle emission testing
- CARB Diesel
- Paved and Unpaved Road Controls
- Residential Wood Burning Controls
- District controls on industrial emissions
- Regulation VIII
- Prescribed and Open Burning Controls
- Local transportation control measures (TCMs)
- Federal controls for heavy-duty onroad, nonroad, and fuel standards

What does the law require now?

- Submit plan to EPA by December 31, 2002.
- Plan must provide for annual reductions in PM-10 or PM-10 precursor emissions of 5% per year until attainment of the standards can be demonstrated.
- Include enforceable commitments to implement all Best Available Control Measures (BACM). These commitments were required for the Serious Area Plan and are past due. BACM must be implemented as expeditiously as practicable.

What additional measures could be considered?

- Federal Controls (e.g., interstate truck travel, trains, and planes)
- State Controls (e.g., cars/trucks and nonroad equipment)
- Additional District Controls on stationary sources (Agriculture)
- Strengthen Regulation VIII
- Additional TCMs

REQUIREMENTS FOR SERIOUS PM-10 NONATTAINMENT AREAS WHICH HAVE FAILED TO ATTAIN

NOTE: Section 189(d) of the Clean Air Act addresses Serious PM-10 Nonattainment Areas that have failed to attain the standards. However, EPA has not released guidance for implementing this section of the Act. In addition, no other area in the U.S. has been required to submit a plan as required by this section of the Act. The following summary is based on preliminary review of the Clean Air Act; consultation with EPA will be ongoing.

- Attainment Date: as expeditiously as possible
- Major Source & Major Stationary Source: 70 tons per year. *It is important to note that the control requirements for major stationary sources of PM-10 also apply to major stationary sources of PM-10 precursors (potentially ROG, NOx, SOx, and ammonia).*
- Attainment Demonstration and Specific Annual Emission Reductions: The Clean Air Act requires a comprehensive, accurate, and current inventory of actual emissions from all sources of PM-10 and its precursors. Annual reduction in PM-10 or PM-10 precursor emissions of not less than 5 percent of the amount of such emissions as reported in the most recent inventory until attainment of the standards. EPA requires that the plan contain motor vehicle emission budgets resulting from the reasonable further progress and attainment demonstrations.
- Contingency Provisions: The Plan must provide for contingency measures to be implemented if the area fails to make reasonable further progress toward attainment or attain the standard by the attainment date.
- Provisions to Implement Best Available Control Measures: Commitments to implement BACM are past due. BACM is the maximum degree of emissions reduction of PM-10 from a source.

As part of the February 28, 2002 EPA finding of failure to submit, EPA indicated that the 1997 Plan “does not meet the requirements of CAA section 189(b)(1)(B) and EPA guidance for best available control measures (BACM): the Plan does not provide for BACM for each significant source category; it does not document the State’s selection of BACM; and the Plan’s BACM commitments are not being met”.

- Milestones: Demonstration that milestones are achieved every 3 years. Milestones are established by the reasonable further progress demonstration. The milestone demonstration is due 90 days after the milestone occurs. If the demonstration is not submitted or the milestone has not been met, a plan revision is due in 9 months that assures that the next milestone will be met.
- Sanction Clocks: Triggered due to EPA finding of Failure to Submit Serious PM-10 Plan issued on February 28, 2002. This action starts an 18-month sanctions clock for 2-1 offsets and 24-month sanctions clock for federal highway funding that can only be turned off by a complete plan submittal and a 2-year FIP clock that can only be turned off by EPA approving the plan submittal. It is anticipated that this will be satisfied by 5% plan.

RESOLUTION NO. 2002-228

A RESOLUTION OF THE LODI CITY COUNCIL IMPLEMENTING THE CITY
OF LODI'S BEST AVAILABLE CONTROL MEASURES FOR PARTICULATE
MATTER (DUST) IN ACCORDANCE WITH THE SAN JOAQUIN VALLEY AIR
POLLUTION CONTROL DISTRICT'S PROPOSED REGULATIONS

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WHEREAS, the San Joaquin Valley Air Basin has been designated as Severe for Particulate Matter; and

WHEREAS, the Federal Clean Air Act requires that the Severe Area Plan for the San Joaquin Valley Air Basin contains Best Available Control Measures to mitigate and reduce particulate matter emissions; and

WHEREAS, the Best Available Control Measures are demonstrated generally through increase in stringency, which is demonstrated by documenting that the new measure addresses a previously uncontrolled activity, and that the level of resources for enforcement have been increased; and

WHEREAS, in addition to providing methods for cleaning the air, the adoption of these Best Available Control Measures also works to ensure that restrictions are not imposed on transportation funding; and

WHEREAS, pursuant to the Clean Air Act, failure to adopt a complete and adequate particulate matter plan, which contains adopted local government control measures, can result in highway funding and approvals to be frozen until the requirements of the Clean Air act are deemed to be satisfied; and

WHEREAS, the measures proposed by the City of Lodi highlight programs that are already in place throughout the City.

BE IT RESOLVED, that the Lodi City Council does hereby approve and implement the City of Lodi's Best Available Control Measures for Particulate Matter (dust) in accordance with the San Joaquin Valley Air Pollution Control District's Proposed Regulations.

Dated: November 20, 2002

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I hereby certify that Resolution No. 2002-228 was passed and adopted by the Lodi City Council in a regular meeting held November 20, 2002 by the following vote:

AYES: COUNCIL MEMBERS – Hitchcock, Howard, Land, Nakanishi, and Mayor Pennino

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None


SUSAN J. BLACKSTON
City Clerk

2002-228